

Increasing the Role of Mathematical Calculus Studies in Developing the Future Mathematics Teacher's Professional Competences

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The report of the UNESCO international Commission “Education for the Twenty-First Century” stresses that the education of the present-day should comprise four fundamental types of learning: learning to know – to acquire means of understanding; learning to do - in order to be able to collaborate creatively and work effectively to achieve the goal; learning to live together - in order to participate and collaborate with others in all fields of human activity, and learning to exist - in order to form awareness of oneself, own value and of the place and the role in the world (1). In order to fulfil this objective each budding maths teacher needs professional competences, which create opportunities for efficient process of teaching-learning mathematics, i.e., makes it possible:

- To facilitate development of the student's all-round personality and readiness for life activities (maths problems is one of the most important means in teaching, upbringing and development of the student)
- To make a professional assessment of the results in studies and the student achievement
- To foster the person's value system
- To choose the most effective behaviour strategy in problem situations
- To successfully collaborate with students, their parents and other teachers
- To promote own self-development.

Analysis of the level of the acquired course in Mathematical Calculus takes a significant place in educating a professional mathematics teacher: it gives understanding about discrete or continuous, finite or infinite quantities, about application of differential calculus and integral calculus in description and investigation of nature processes (2, 104 – pp113). The report will present analysis of students' – future maths teachers' difficulties during the studies of this subject and the ways of overcoming them.

Key words: mathematics teacher, mathematical calculus, teacher's professional competences.

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